

**Statistics 1995**

**euro  gas**

# 1 ENERGY CONSUMPTION

## 1995 - Primary Energy Consumption in EUROGAS Member Countries and EU 15:

MTOE	A	B	CH	CZ S1	D	DK	E	F	H	I	IRL	NL	S	SF	UK	EU15
Oil	11.1	20.5	12.2	7.2	196.1	8.8	25.3	22.2	7.5	95.4	5.8	25.6	16.4	8.2	72.4	379.5
Solid Fuels	2.9	10.0	0.2	25.3	90.5	6.5	18.4	11.7	4.2	13.8	3.0	19.0	2.3	4.9	47.3	265.8
Natural Gas	6.4	10.6	2.2	8.0	67.2	3.2	7.5	29.5	9.2	44.9	1.9	32.9	0.8	2.8	65.0	271.2
Nuclear Electricity 1)	0.0	10.2	6.1	1.1	34.5	0.0	14.5	98.5	3.8	0.0	0.0	1.0	18.1	4.7	22.5	208.6
Hydro Electricity 1)	3.3	0.1	3.1	0.1	4.8	0.0	2.0	8.6	0.0	2.4	0.1	0.0	3.1	1.1	0.4	28.1
Electricity Net Import	-0.1	0.9	-0.6	-0.0	1.0	-0.1	0.4	118.0	2.0	3.0	0.0	1.1	-0.1	2.3	1.4	(7.7)
Renewables 2)	2.8	0.0	0.4	0.0	4.4	1.4	2.5	4.2	0.3	3.1	0.0	0.0	7.2	5.2	1.2	32.8
Other	0.8	0.0	0.7	2.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.8	0.4	0.0	0.0	2.0
<b>Total</b>	<b>27.0</b>	<b>52.3</b>	<b>24.3</b>	<b>39.7</b>	<b>338.3</b>	<b>19.8</b>	<b>100.6</b>	<b>224.3</b>	<b>24.8</b>	<b>163.6</b>	<b>10.0</b>	<b>71.8</b>	<b>50.6</b>	<b>29.2</b>	<b>208.0</b>	<b>1,345.4</b>

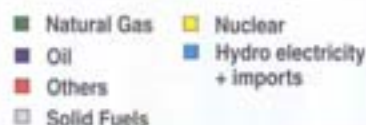
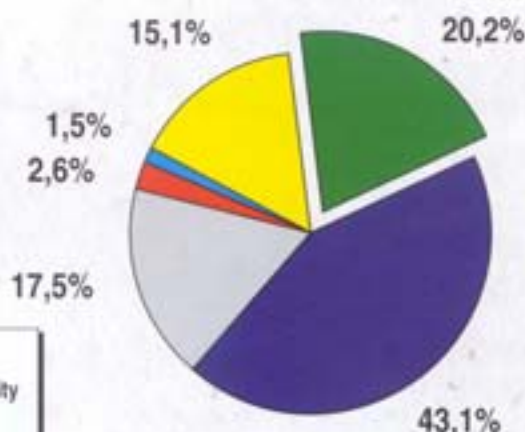
Notes: 1) Domestically produced

2) Renewables includes biomass, wind, solar and geothermal energy

S1 1994 figures

1995

Primary Energy Consumption by Fuel (EU 15)



## IEA Energy Indicators for 1995 Primary Energy Consumption (PEC) per capita and per GDP unit:

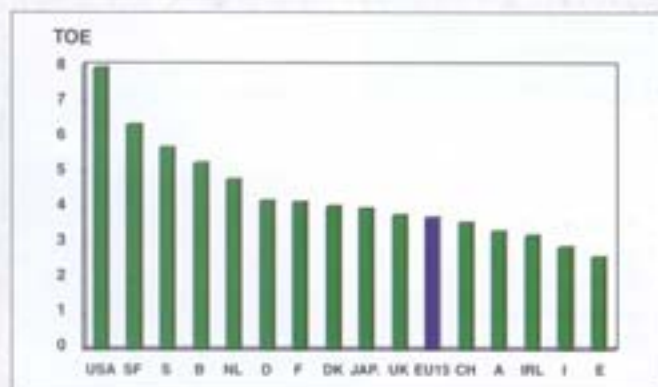
	A	B	CH	D	DK	E	F	I	IRL	NL	S	SF	UK	EU 15
PEC per capita 1)	3.30	5.22	5.35	4.16	3.99	2.59	4.13	2.85	3.18	4.75	5.65	6.29	5.75	3.70
PEC/GDP-1990 2)	0.15	0.28	0.11	0.19	0.14	0.18	0.19	0.14	0.20	0.25	0.22	0.25	0.21	0.19

Notes: 1) IEA - estimate (for 1995) measured as total primary energy supply in TOE per inhabitant.

2) IEA - estimate (for 1995) measured as total primary energy supply in TOE per \$ 1000 of GDP at 1990 prices and exchange rates

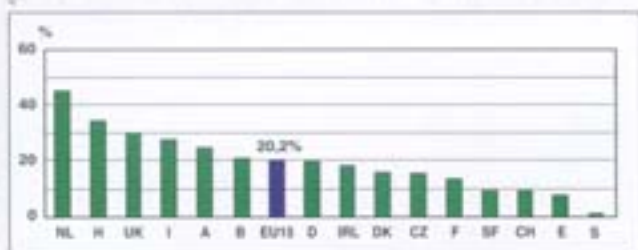
1995

Primary Energy Consumption per Capita



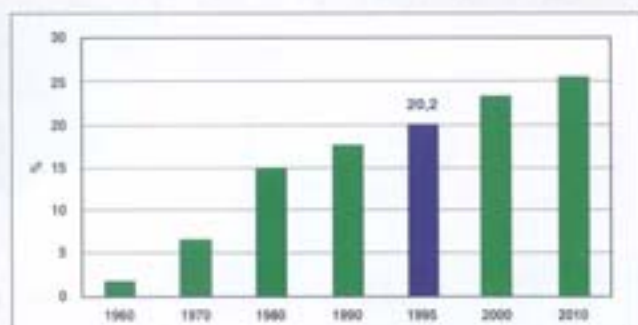
1995

Share of Natural Gas  
in Primary Energy  
Consumption



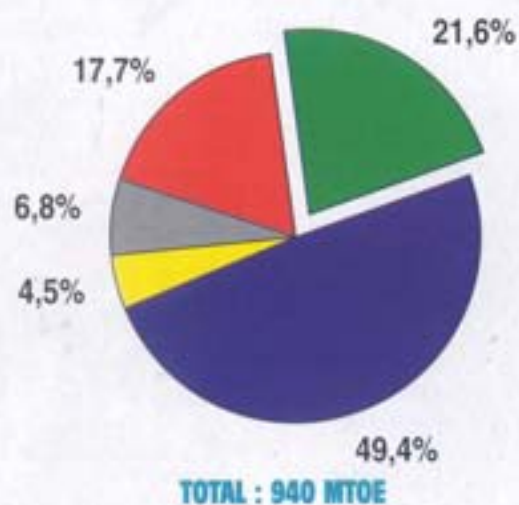
1960 - 2010

Share of Natural Gas  
in Primary Energy  
Consumption (EU 15)



1995

Final Energy  
Consumption  
by Source (EU 15)



# 2 NATURAL GAS SALES & SUPPLIES

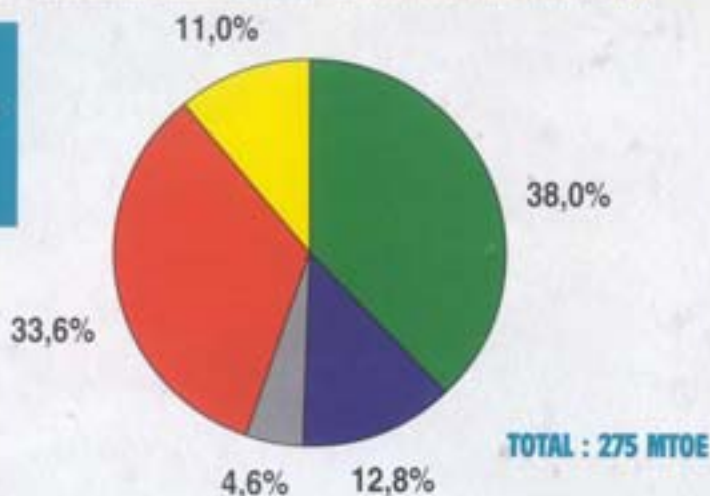
## 1995 - Inland Sales of Natural Gas by Sector in EUROGAS Member Countries and EU 15:

PJ	A	B	CH	CZ	D	DK	E	F	H	I	IRL	NL	S	SP	UK	EU 15
Residential	98.0	145.2	37.7	76.3	974.7	24.8	48.0	526.1	132.0	897.7	11.7	425.3	2.6	0.8	1,175.6	4,196.9
Commercial	n.a.	65.1	17.4	n.a.	122.6	14.1	98.0	217.1	51.9	176.0	8.1	325.0	2.6	1.2	409.8	1,957.7
Industry	118.0	200.1	40.2	n.a.	1,279.1	37.2	272.2	616.8	110.6	879.7	38.1	550.4	12.3	45.7	591.4	4,681.0
Power plants	62.0	85.1	0.0	n.a.	245.9	11.6	3.2	0.4	75.4	206.1	49.0	262.2	0.0	32.0	524.8	1,579.2
Others	18.0	0.0	8.8	n.a.	386.2	44.8	0.0	15.3	15.3	36.8	1.7	5.1	13.6	32.7	16.7	570.9
<b>Total</b>	<b>296.0</b>	<b>495.5</b>	<b>103.1</b>	<b>305.8</b>	<b>3,008.5</b>	<b>132.5</b>	<b>339.4</b>	<b>1,579.5</b>	<b>425.4</b>	<b>2,065.5</b>	<b>108.6</b>	<b>1,079.0</b>	<b>21.1</b>	<b>102.4</b>	<b>2,716.3</b>	<b>12,319.7</b>

With an assumed energy content of 39 MJ (GCV), Total inland Sales corresponds to 315 BCM (approx. 375 MTOE (GCV))

1995

### Natural Gas Sales by Sector (EU 15)



1995

### Gas Demand Growth Rate by Sector (EU 15)



## 1995 - Supplies of Natural Gas in EUROGAS Member Countries and EU 15 :

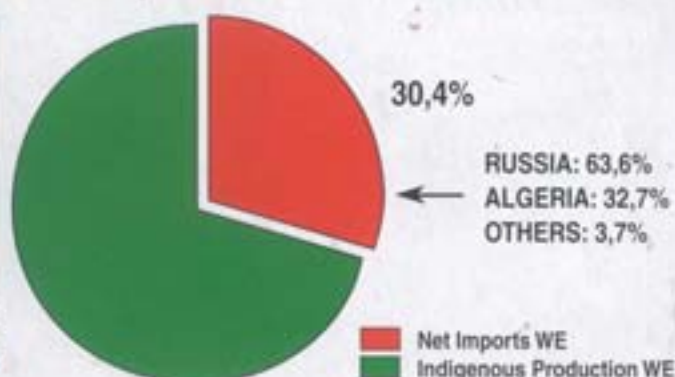
PJ	A	B	CH	CZ	D	DK	E	F	H	I	IRL	NL	S	SP	UK	EU15	% EU15
Indigenous Production	58.0	0.0	0.0	4.1	889.1	204.7	20.0	125.4	165.0	768.9	104.6	2,791.2	0.0	0.0	2,768.3	7,336.1	61.2%
Net imports																	
from EU members	11.0	101.8	89.8	0.1	848.0	69.7	14.7	165.3	0.0	137.9	3.7	(1,332.4)	31.1	0.0	(40.0)	(25.3)	(0.2%)
from non-EU members	249.0	303.8	12.8	306.9	1,814.8	0.0	399.6	1,115.4	296.5	1,199.5	0.0	108.8	0.0	132.4	70.1	5,119.0	41.3%
changes in stocks (+) and other balances (-)	(17.0)	7.8	0.0	(7.5)	(142.1)	(2.7)	(42.0)	(28.8)	6.0	(11.0)	0.0	6.5	0.0	0.0	(81.1)	(98.4)	(0.8%)
<b>Net Supplies</b>	<b>296.0</b>	<b>495.5</b>	<b>103.1</b>	<b>305.8</b>	<b>3,008.5</b>	<b>132.5</b>	<b>339.4</b>	<b>1,579.5</b>	<b>425.4</b>	<b>2,065.5</b>	<b>108.6</b>	<b>1,079.0</b>	<b>21.1</b>	<b>102.4</b>	<b>2,716.3</b>	<b>12,319.2</b>	<b>100.0%</b>

Notes: (+) (+) Increase in stocks; (-) Decrease in stocks

1995

### Breakdown of Total Natural Gas Supplies (Western Europe\*)

**69,6%**  
**TOTAL : 278 MTOE**

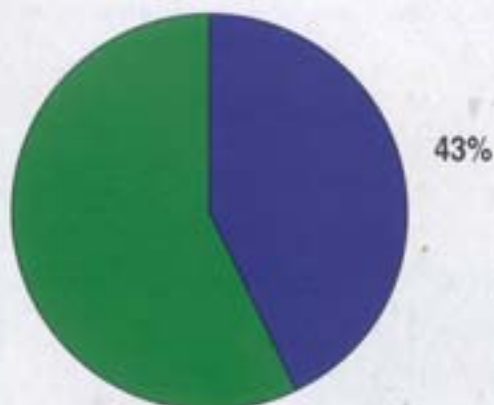


\* Western Europe (WE) includes EU15, Switzerland and Norway

## EU Share of World Gas Trade

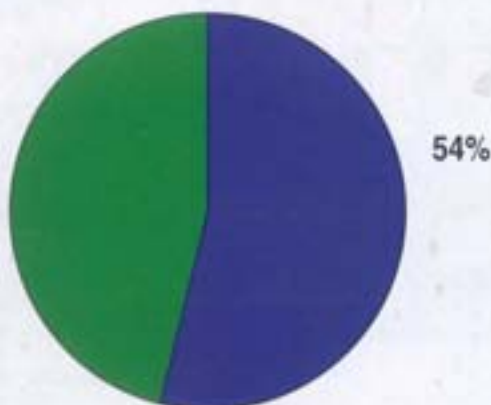
In 1995, world natural gas trade (import/export) totalled to some 356 MTOE. 43% of this gas was imported by EU-countries.

Source: CEDIGAZ, EUROGAS



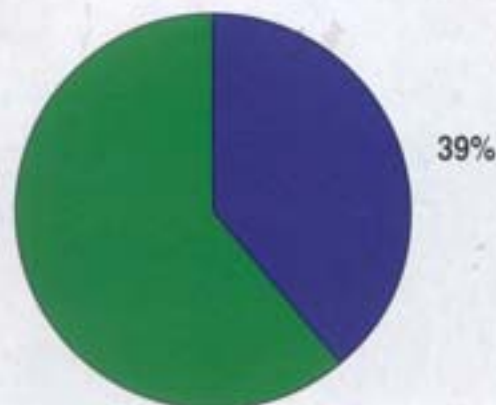
## Cross Border Gas Supplies of Total EU Gas Consumption

In 1995, total EU natural gas consumption was approx. 275 MTOE. Nearly 54% of this gas crossed at least one country borderline on its way to the consumer.



## EU Gas Import Dependency

39% of the EU's total natural gas consumption in 1995 was net imported from outside the EU.

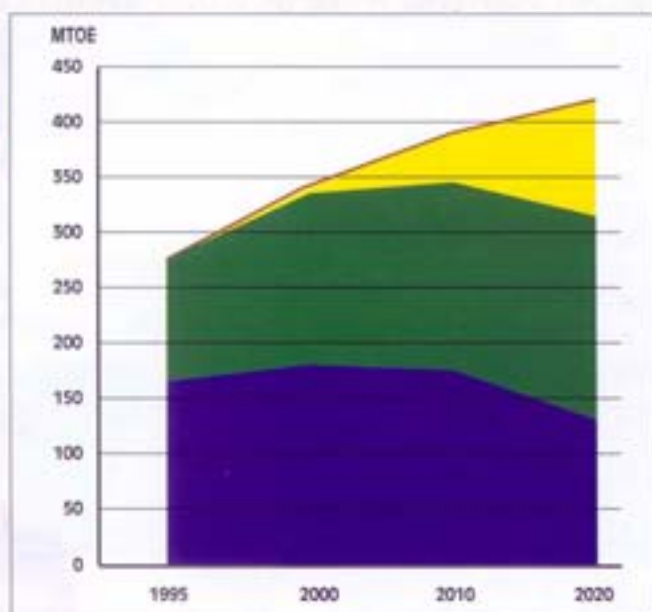


# NATURAL GAS DEMAND & SUPPLY OUTLOOK

## EUROGAS Long-term Natural Gas Demand & Supply Outlook for EU 15 :

MTOE	1995	2000	2010	2020
Total Demand	275	340	390	420
Indigenous Production	165	180	175	130
Net Contracted Imports	110	155	170	180
Additional Supplies to be Defined	-	5	45	110
Estimated EU Import Dependency	40%	45%	55%	70%

### EU Natural Gas Demand & Supply Outlook 1995-2020

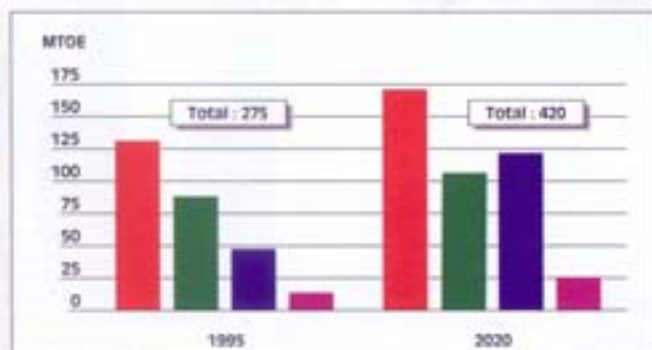
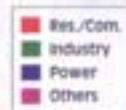


### Estimated Natural Gas Import Dependency of Western Europe\*:

	1995	2000	2010	2020
Estimated Natural Gas Import Dependency	30 %	35%	35%	40%

\* EU15, Norway, Switzerland

### EU Natural Gas Demand Outlook by Sector



# THE EUROPEAN NATURAL GAS INDUSTRY IN KEY FIGURES

## Number of Gas Customers (in thousands) as of 1 January 1996:

	A	B	CH	CZ	D	DK	E	F	H	I	IRL	NL	S	SF	UK <sup>1)</sup>	Total
Domestic	1 153	2 180	402	2 382	10 250	227	2 720	9 271	2 342	11 710	341	n.a.	46	34	18 501	n.a.
Non-Domestic	1	81	23	176	621	6	31	481	103	390	9	n.a.	2	1	258	n.a.
<b>Total</b>	<b>1 154</b>	<b>2 261</b>	<b>425</b>	<b>2 558</b>	<b>10 871</b>	<b>233</b>	<b>2 751</b>	<b>9 752</b>	<b>2 445</b>	<b>12 100</b>	<b>350</b>	<b>n.a.</b>	<b>48</b>	<b>35</b>	<b>18 759</b>	<b>17 201</b>

## Number of Employees as of 1 January 1996:

	A <sup>2)</sup>	B	CH	CZ <sup>3)</sup>	D	DK	E	F <sup>4)</sup>	H	I	IRL	NL	S	SF	UK	Total
Total for Transmission and Distribution	3 300	4 144	1 700	2 121	47 200	1 533	4 117	21 700	n.a.	34 200	776	11 100	225	300	20 600	106 306

## Investments in 1995 (mio ECU-average July 1995 rates):

	A	B	CH	CZ <sup>5)</sup>	D	DK	E	F <sup>6)</sup>	H	I	IRL	NL	S	SF	UK	Total
Total for Transmission and Distribution	161	203	117	128	3 916	107	542	962	n.a.	1 385	40	481	2	11	201	6 334

## Length of Pipeline as of 1 January 1996 (km):

	A	B	CH	CZ	D	DK	E	F	H	I	IRL	NL	S	SF	UK	Total
Transmission	670	5 682	1 990	16 876	50 000	1 076	6 912	22 000	4 480	27 700	1 010	11 424	480	220	17 900	124 312
Distribution	22 307	46 229	11 480	25 083	270 000	16 384	14 700	107 000	12 210	160 000	4 771	108 000	2 400	1 170	201 700	1 118 716
<b>Total</b>	<b>22 977</b>	<b>51 911</b>	<b>13 470</b>	<b>41 959</b>	<b>320 000</b>	<b>17 460</b>	<b>21 612</b>	<b>129 000</b>	<b>16 690</b>	<b>187 700</b>	<b>5 781</b>	<b>119 424</b>	<b>2 880</b>	<b>1 390</b>	<b>209 600</b>	<b>1 243 028</b>

## Natural Gas Storage as of 1 January 1996:

	A	B	CH <sup>7)</sup>	CZ <sup>7)</sup>	D	DK	E	F	H	I	IRL	NL	S	SF	UK	Total
Number of Storage Facilities	5	3	10	5+12)	34	2	2	10	3	3	0	1	0	0	7	60
Maximum Working Volume, mld m <sup>3</sup>	2 420	527	approx. 32	1 660	11 420	approx. 600	1 170	10 200	approx. 200	approx. 14 600	0	approx. 75	0	0	1 400	approx. 52 396
Maximum Withdrawal Capacity, mld mld-day	27	approx. 16	approx. 1.4	10.7	320	approx. 16	0.3	171	approx. 24.5	260	0	approx. 31	0	0	118	approx. 1 049

- Notes: 1) Number of gas customers is for British Gas only.  
 2) Number of employees is for Austrian gas supply undertakings.  
 3) Number of employees is for Transgas only.  
 4) Number of employees is for Gaz de France only.  
 5) Investments for Transgas only.  
 6) Investments for Gaz de France only.  
 7) ( ) = Storage facilities abroad.

## Definitions :

Internationally agreed statistical methods and definitions have been applied.

**Primary Energy Consumption** is defined as the total gross energy supply (Indigenous production plus net imports) before any conversion of the primary energy into final energy forms has taken place.

**Final Energy Consumption** is the Primary Energy Consumption less net energy losses in the production of electricity and synthetic gas, refinery use and other energy sector uses and losses.

**Natural Gas Sales and Supplies** have been stated in PJ because of different national gas qualities. With an assumed energy content of 1 m<sup>3</sup> of natural gas of 39 MJ (Gross Calorific Value), 1 PJ corresponds to approx. 25.6 mill. m<sup>3</sup> of natural gas.

## Conversion Factors :

1PJ (GCV)	=	25.6 million m <sup>3</sup> gas	
1 m <sup>3</sup> of natural gas	=	39 megajoules (MJ - GCV)	= 10.8 kWh
1 MTOE	=	1 Million Tonnes of Oil Equivalent	= 41.86 PJ (NCV)
1000 m <sup>3</sup> of natural gas	=	0.9 ton oil equivalent (toe - crude oil)	
1 BCM	=	1 Billion Cubic Meters	
1 cubic meter (m <sup>3</sup> )	=	35.315 cubic feet (cf)	
1 million m <sup>3</sup> of LNG	=	593 million m <sup>3</sup> of gas	
Net Calorific Value (NCV)	=	0.9 Gross Calorific Value (GCV)	
1 Megajoule	=	10 <sup>6</sup> Joules	
1 Gigajoule	=	10 <sup>9</sup> Joules	
1 Terajoule	=	10 <sup>12</sup> Joules	
1 Petajoule	=	10 <sup>15</sup> Joules	

## Heat units :

Equivalent to :	GJ	kWh	MBtu	th	therm
1 gigajoule (GJ)	1	277.8	0.948	238.9	9.479
1 kilowatt-hour (kWh)	3.6 10 <sup>-1</sup>	1	3.411 10 <sup>-1</sup>	0.86	3.411 10 <sup>-2</sup>
1 million British Thermal Units (MBtu)	1.055	293.2	1	252	10
1 thermie (th)	4.186 10 <sup>-1</sup>	1.162	3.968 10 <sup>-1</sup>	1	3.968 10 <sup>-2</sup>
1 therm	0.1055	29.32	1 10 <sup>-1</sup>	25.2	1